



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



STEVEN E. CHESTER  
DIRECTOR

January 5, 2006

Mr. Michael C. Wetzel, P.E.  
Environmental Services Superintendent  
City of Kalamazoo Public Services Department  
1415 North Harrison Street  
Kalamazoo, Michigan 49007-2565

Dear Mr. Wetzel:

SUBJECT: Operating Plan Approval  
City of Kalamazoo Septage Receiving Facility

Review of the City of Kalamazoo Septage Receiving Facility Operating Plan received on September 9, 2005, is complete. The purpose of the review was to ensure that the plan addressed all of the required elements of Part 117, Septage Waste Servicers, Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The operating plan is approved. The receiving facility must operate in accordance with the approved plan. If a change in operations or conditions is anticipated, please file an amendment to the plan at least thirty days prior to the proposed date for implementation. Please note that this approval is conditioned such that the identified service areas restrict only the disposition of septic tank waste pumped within those areas. Land application of septage pumped from outside the service areas may continue to be land applied to approved land-application sites within the identified boundaries.

If you have any questions regarding this matter, please contact me at the number below.

Sincerely,

Brett A. Wiseley  
On-Site Wastewater Unit  
Drinking Water and Environmental Health Section  
Water Bureau  
517-241-1452

BAW:DLR

cc: Mr. James Rutherford, Kalamazoo County Health Department  
Mr. Richard Falardeau, Water Bureau, DEQ  
Mr. Matthew Campbell, Water Bureau, DEQ



**Public Services Department  
Environmental Services Division**

1415 N. Harrison Street  
Kalamazoo, MI 49007-2565  
Ph. 269.337.8511  
Fx. 269.337.8535  
[www.kalamazoo-city.org](http://www.kalamazoo-city.org)

September 7, 2005

Mr. Matt Campbell  
Septage Waste Program Coordinator  
Water Bureau  
Department of Environmental Quality  
Constitution Hall, Second Floor – North  
PO Box 30273  
Lansing, MI 48909-7773

Re: Kalamazoo Water Reclamation Plant  
Septage Receiving Operating Plan

Dear Mr. Campbell:

Attached for your review and approval is a draft of the above captioned document which is being submitted pursuant to Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451 and as indicated in your letter dated June 9, 2005.

A notarized copy of the public notice is also included. In addition, we have sent a copy of the public notice to Mr. James Rutherford, Director, Environmental Health, Kalamazoo County Health & Community Services. Copies of the notice were also sent to the following governmental agencies, who are within the KWRP service area:

Alamo Township  
Cooper Township  
Pavilion Township  
Village of Augusta  
Gull Lake Sewer Authority  
City of Portage

Charleston Township  
Kalamazoo Township  
Schoolcraft Township  
Village of Mattawan  
City of Galesburg

Comstock Township  
Oshtemo Township  
Texas Township  
Village of Vicksburg  
City of Parchment

Should you have any comments regarding these submittals, please contact me.

Sincerely,

Michael C. Wetzel, P.E.  
Environmental Services Superintendent

C: Rich Beardslee  
Bruce Merchant

**RECEIVED**

SEP 09 2005

WATER BUREAU  
DWEHS

September 1, 2005

PUBLIC NOTICE

Kalamazoo Water Reclamation Plant  
Proposed Operating Plan for Septage  
Receiving

The Kalamazoo Water Reclamation Plant (KWRP) currently is receiving and treating domestic septage and will continue to receive this waste in the future.

On October 12, 2004 House Bill 577A and 5772 were signed into law by Governor Jennifer M. Granholm. The Bills amend Part 117, Septage Waste Services, of the National Resource and Environmental Protection Act, 1994 PA 451. Part 117 regulates the pumping, disposal, and land application of septage waste.

In accordance with the requirements of Section 11715b of Part 117, the City has prepared a draft Septage Receiving Operating Plan. A copy of the proposed operating plan is available for review at the Water Reclamation Plant, Harrison Street Facility, 1415 N. Harrison Street, during normal business hours.

This public notice is a request for public comments on the proposed Operating Plan. Please submit any written comments to the KWRP, at the address below, by September 30, 2005.

KWRP Septage Receiving Operating Plan  
Environmental Services Division  
1415 N. Harrison St.  
Kalamazoo Michigan, 49007

STATE OF MICHIGAN )  
County of Kalamazoo

ss. *Jane L. Boyer*  
being duly sworn deposes and says he/she is Principal Clerk of

THE KALAMAZOO GAZETTE  
DAILY EDITION

a newspaper published and circulated in the County of Kalamazoo and otherwise qualified according to Supreme Court Rule, and that the annexed notice, taken from said paper, has been duly published in said paper on the following day(days).

SEPTEMBER 1

A.D. 20 05

Sworn to and subscribed before me this 2ND day of SEPTEMBER 20 05

*Karen J. Wilkes*  
Notary Public, Kalamazoo County, Michigan

KAREN J. WILKES  
Notary Public, Van Buren County, MI  
Acting in Kalamazoo Co., MI  
My Commission Expires 09/28/2005

# **Kalamazoo Water Reclamation Plant Septage Receiving Operating Plan**

**City of Kalamazoo  
Department of Public Services  
Environmental Services Division**

**September, 2005**

**RECEIVED**

SEP 09 2005

WATER BUREAU  
DWEHS

## **Kalamazoo Water Reclamation Plant Septage Receiving Operating Plan**

### **1.0 Regulatory Authority**

This plan has been developed in response to the regulatory requirements of Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The Kalamazoo Water Reclamation Plant has accepted domestic sewage for treatment since 1986 and plans to continue receiving such waste since acceptance of this wastewater stream provides a valuable service to the Kalamazoo area. Subsequently, this Septage Receiving Operating Plan has been prepared pursuant to the requirements of Section 324.11715b.

### **2.0 Overview**

During the last several years the plant has received and treated about 6.5 million gallons of septage annually or about 18,000 gallons per day, with a peak rate of about 20,000 gallons per day. In 2004, however, the total amount of septage received dropped to 3.2 million gallons, or 8,800 gallons per day. During the peak usage of the station, from April through October the average daily septage flow was about 10,000 gallons per day.

At an existing average KWRP raw sewage flow of 29 MGD, septage represents only 0.03% of the total flow treated. Therefore, the KWRP could increase the amount of septage received at the plant without any noticeable impact to the treatment system. The KWRP has a unique feature in that powdered activated carbon is added to the secondary treatment process to protect against plant upsets caused by a highly variable industrial wastewater loading to the plant. Therefore, the impact to the treatment system as a result of septage is minimal.

### **3.0 Septage Receiving Station Location & Description**

The septage receiving station consists of a truck scale and an automated, enclosed screening system located just north of the main KWRP treatment units. Septage is screened and discharged to the main north sanitary sewer interceptor. The screened septage flow is then treated in combination with the wastewater reaching the plant. The receiving station can be accessed from the south through the Harrison Street entrance or from the north off of Mosel St. Figure 1 shows the location of the Septage Receiving Facility in relationship to other KWRP facilities.

The truck scale is 70 feet in length and is equipped with a controlled access key pad entry system where the driver enters an assigned alpha-numeric code specific to the company name and truck number. The information recorded includes the identification number, time and date; and the truck weight. The truck's tare weight, which is reestablished every 6 months, is stored in the system and used to determine the net weight of the septage for billing purposes. When compared to the tare weight that is stored in the system the weight of septage is recorded and later converted to gallons.



**FIGURE 1**

The electronic key pad system at the truck scale is connected to the screen so once the proper ID number is entered and the truck has completed the weighing process, the hauler is then able to use the screen system.

The receiving station is an automated mechanical screen that is enclosed in a heated and mechanically ventilated building. The facility has been designed so that a second screen can be added in the future. The KWRP Septage Receiving Station is equipped with a Helisieve Plus screen, manufactured by Hycor, Inc. that is used to screen, convey, and dewater screenings piped in a liquid stream from the septage hauling vehicles. The screen has a hydraulic capacity of 650 gpm of normal septage. The dewatered screenings are discharged into a receptacle for disposal at a landfill. The piped effluent from the screen (water and finer solids) is discharged to one of the plant's interceptor sewers for complete tertiary treatment at the KWRP. Detailed drawings of the screen are shown in Figures 2 and 3.

#### **4.0 Operating Schedule**

Although the operating schedule for the receiving station is 24 hours per day and 7 days per week, septage, in general, is only delivered to the plant during the daylight hours. Haulers have direct access to the system from 6AM to 5PM. After 5PM, the Mosel St. gate is locked and the Harrison Street gate is closed. A hauler entering the facility after 5PM must first press a button outside the gate. A treatment control analyst will then let the hauler in after proper identification is obtained.

#### **5.0 Acceptance of Septage**

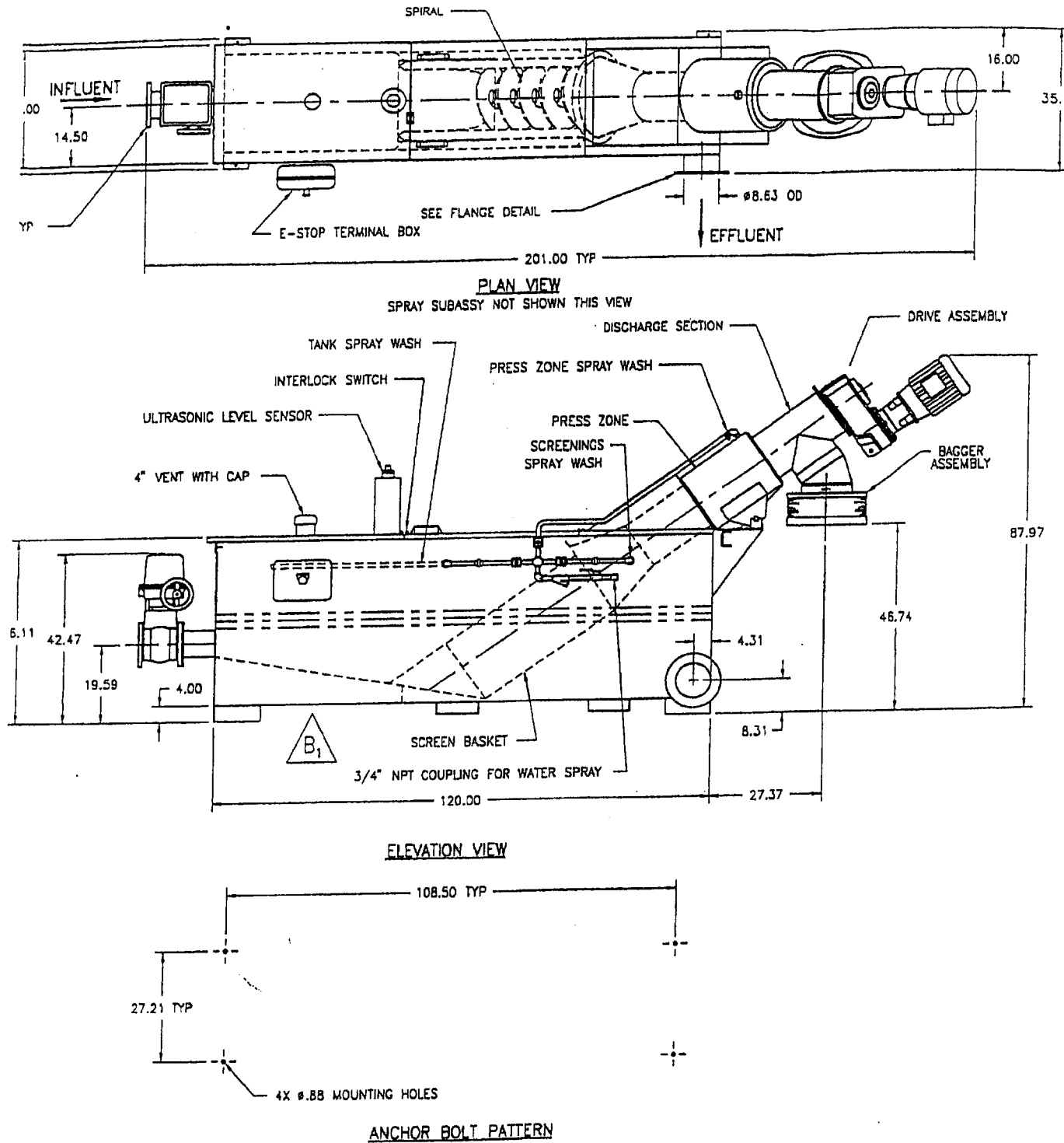
Septage and hauled wastes are highly variable materials that may contain substantial amounts of grease, grit, organics, and suspended solids. The KWRP accepts only domestic septage which is septage pumped from home septic tanks, recreational vehicles (RV), cesspool, portable toilets, type III marine sanitation devices, or similar storage or treatment works that receives only domestic wastewater.

Every load of septage that is brought to the KWRP must be accompanied by a 'Hauled Waste Tracking and Discharge Ticket', (Attachment B). The information required includes identification of the hauling company; the origin of the material, i.e., household or non-household with complete name and address information for each location comprising the complete load; and discharge information such as truck and load weights and time-in/time-out.

#### **6.0 Fee Structure**

Septage haulers are regulated by the current sewer use ordinance and service charges which are described in Chapter 28 of the Kalamazoo City Code of Ordinances. Even though a septage hauler is considered a domestic user, or the source of waste is from residential and commercial establishments, the average strength of waste, which is used as the basis for establishing user rates, is considerably higher than that of a domestic user.

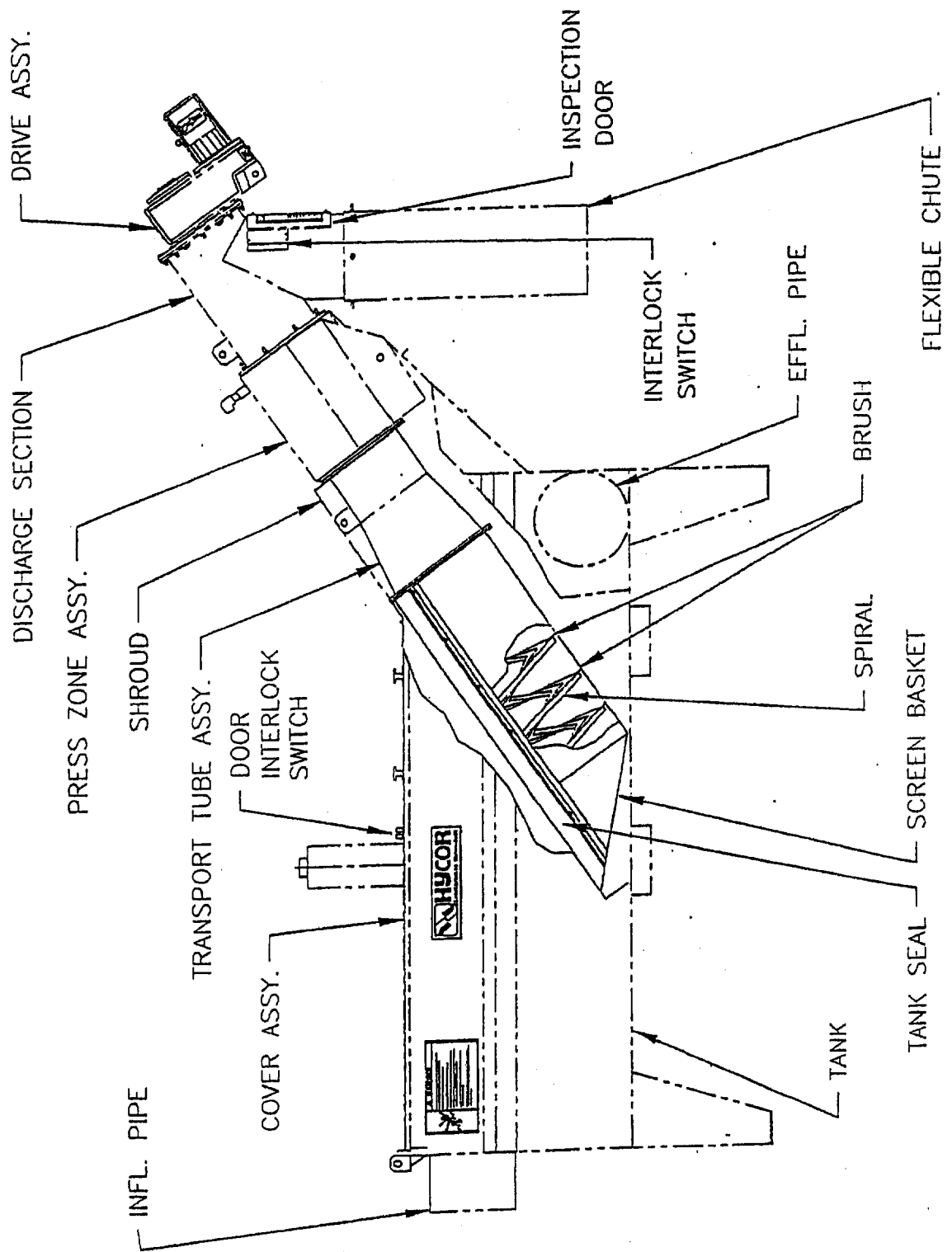
FIGURE 2



<b>ICOR</b> SOLID SEPARATION ILLINOIS 60064 USA rights reserved. No ticed in any form Hycor Corporation. 4 to alter this data or time, without prior negotiation whatsoever.	<input type="checkbox"/> Preliminary	<input type="checkbox"/> Information Only	REV	DESCRIPTION	DATE	REFERENCE INFORMATION P.O. # 090902
	<input type="checkbox"/> For Approval	<input checked="" type="checkbox"/> Dimensions Certified	A	REMOVED ONE VALVE: LOWERED INLET	1/2/97	
	This drawing is limited to functional design, general arrangement and clearance. No responsibility is accepted by Hycor Corporation for other dimensions, quantities, or coordination with other equipment or drawings except as stated in the purchase order.		B	1) REMOVED CLEANOUT PORT 2) WAS CL 1, DIV 2 3) WAS NEMA 4	8/25/97	
	By WWW Date 10/17/97					



**FIGURE 3**



STANDARD EQUIPMENT LAYOUT

For the purposes of determining a wastewater rate for septage haulers, the following concentrations are used to define the strength of normal domestic septage.

BOD<sub>5</sub> = 6,000 mg/l  
TSS = 14,000 mg/l  
Ammonia = 157 mg/l

Since septage is not conveyed to the KWRP through the sewer system, hauler's rates are based on unit OM&R costs at the wastewater treatment facility, e.g., primary treatment, secondary treatment and receiving station operating costs. In addition, the rates are also structured to include the 20 year amortized replacement cost of the new septage receiving facility that was placed on line in 1996. The charge for wastewater treatment service is defined as a commodity charge and is expressed in \$/meter<sup>3</sup>. The commodity charge is determined by Operating, Maintenance, and Replacement cost (OM&R) plus Capital expense. The components and total commodity charge for septage haulers are shown below:

		Total Commodity
<u>OM&amp;R</u>	<u>Capital</u>	<u>Charge</u>
26.395	1.583	27.978

The total commodity charge, when converted, is \$0.106/gallon.

#### 7.0 Service Area

As previously mentioned the KWRP potentially receives septage from throughout Kalamazoo County and into Van Buren and Allegan Counties based on the fairly wide distribution of the septage haulers using the KWRP. There are currently 13 septage hauling contractors that have been approved to use the facility; two are located in Battle Creek, two are from Allegan, one from Otsego, one from Paw Paw, one from Gobles one from Scotts and the rest from Kalamazoo.

#### 8.0 Miscellaneous Conditions

The KWRP staff has prepared procedures to follow for both the septage haulers using the station and staff as it pertains to potential enforcement action taken against a hauler.

Attachment "A" is operating procedures that are given to each septage hauler with respect to operating the station.

Procedures to be followed by Environmental Services and Wastewater Operations staff should the septage hauler fails to properly operate the septage receiving equipment or delivers or attempts to deliver an industrial waste or grease trap waste to the receiving station.

1. Wastewater Operations will respond to problems at the Septage Receiving station per their standard operating procedures. Their procedure includes contacting

# ATTACHMENT "A"

## ATTENTION SEPTAGE HAULERS SEPTAGE STATION PROCEDURES

1. S T O P . . . IS THERE A TRUCK AT THE DUMPING STATION?
2. IF SO . . . DO NOT Push the In/Out Button to Weigh in until the truck at the dumping station has stopped dumping and turned their key off.
3. When the truck is finished or if there is No Truck at Dumping Station - Push In/Out Button
4. Enter your Hauler Code (be sure to enter correctly)
5. Press Enter - Do NOT TOUCH ANY OTHER KEYS
6. A white ticket will print (LOOKS LIKE A REGISTER RECEIPT)
7. Use Cutter Button to cut ticket - Do NOT TEAR
8. Staple the white printed receipt to upper left corner of Hauled Waste Tracking Ticket
9. IMPORTANT: Beginning at the top of the Hauled Waste Tracking & Discharge Ticket (complete all sections indicated below):
  - Fill in the Date
  - Fill in the Hauling Company Name, address & zip
  - Fill in the Origin of Material - COMPLETELY  
(DO NOT LEAVE THE NAME BLANK (LAST NAME ONLY IS OK), ADDRESS, CITY, STATE OR ZIP BLANK)
  - Circle type of Waste (Household or Nonhousehold)
  - Fill in the discharge Information  
(From the white receipt ticket - Gross (full), Tare (empty) and Net (total))
  - Fill in the Time in (on the white receipt ticket) and estimate Time Out
  - Sign your name and date
10. Keep Pink Copy and Place remaining Hauled Waste Tracking Ticket in Ticket Box
11. Pull forward to the Septage Dumping Station
12. Turn key on, begin discharging
13. When finished discharging, be sure you have cleaned up the station area - drive out
14. Do Not Weigh-Out, You already have your out weight (tare weight)-You will be notified when it is time to re-tare.

Should you need any assistance please call Michelle at 8701  
or Dena at 8658

If no answer, or if voice mail picks up, call the Treatment Control Analyst at 8681  
ask them to call a supervisor to assist you.

ATTACHMENT "B"

47228

DATE \_\_\_\_\_

CITY OF KALAMAZOO  
WATER RECLAMATION PLANT  
HAULED WASTE TRACKING AND DISCHARGE TICKET

1). HAULING COMPANY INFORMATION:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

2). ORIGIN OF MATERIAL:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

Type of waste: (Circle one)

Household or Nonhousehold

Type of waste: (Circle one)

Household or Nonhousehold

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

Type of waste: (Circle one)

Household or Nonhousehold

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

Type of waste: (Circle one)

Household or Nonhousehold

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

Type of waste: (Circle one)

Household or Nonhousehold

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_

3). DISCHARGE INFORMATION

Full Weight \_\_\_\_\_ (KGs) Time In \_\_\_\_\_  
Empty Weight \_\_\_\_\_ (KGs) Time Out \_\_\_\_\_

TOTAL WEIGHT RECEIVED \_\_\_\_\_ (KGs)

All waste hereby discharged to the Kalamazoo Water Reclamation Plant is nonhazardous and all the above information is accurate and inclusive. Furthermore, I have been informed of the consequences and liabilities associated with the illegal discharge of HAZARDOUS WASTE into the Kalamazoo Water Reclamation Plant by my supervisor and/or authorized KWRP personnel.

HAULING COMPANY REPRESENTATIVE \_\_\_\_\_ DATE \_\_\_\_\_

KWRP REPRESENTATIVE \_\_\_\_\_ DATE \_\_\_\_\_

FOR OFFICE USE ONLY

GALLONS \_\_\_\_\_

DATE ENTERED \_\_\_\_\_